



HEALTHCARE SECTOR SOLUTIONS

MK Electric Products

MK Electric: Quality, reliability, safety and responsibility

MK Electric is the UK's premium electrical accessories brand and for over 90 years has been offering a comprehensive range of solutions for specifiers and installers of electrical products with unrivalled levels of quality, reliability and safety. Across the board, from product innovation through to delivery and sales support, the combination of MK's products and services provides an extremely effective offering to those involved with electrical accessories in the Healthcare Sector.

For over 90 years we have listened carefully to our customers, constantly striving to develop ever

more innovative products, underpinned by excellent customer service levels.

- **Quality** – manufactured to ISO 9002 certification, using superior manufacturing techniques
- **Reliability** – comprehensive 20 year product guarantee, 10 years for Electronic Devices, Circuit Protection and Cable Management
- **Safety** – 100% factory tested for a 'fit and forget' installation every time
- **Responsibility** – innovation for the built environment – preservation for the natural environment

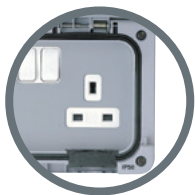
MK SOCKETS – THE SAFEST AVAILABLE

MK's sockets have a "child resistant shutter system", which is designed to inhibit access to the electricity supply, unless all three pins of a British plug are in position.

By choosing our safety sockets, you can be sure that you are giving your building the ultimate in electrical protection.

All electrical sockets manufactured to the British Standard must incorporate a shutter mechanism. British standards ensure a minimum safety level is achieved in the design and manufacture of electrical accessories. MK's socket design offers the maximum safety benefit and is the most difficult shutter mechanism to defeat unless correctly being used with a British plug.

All 13A MK sockets incorporate the 3-pin shutter system. Other MK Wiring Device ranges include:



MASTERSEAL



LOGIC PLUS



ALBANY PLUS



METALCLAD PLUS

3-PIN "CHILD RESISTANT SHUTTER SYSTEM"

MK safety shutter only opens when pressure is applied simultaneously through the three pins, considerably reducing misuse



DOUBLE POLE SWITCHING

Switches both live and neutral contacts (neutral makes first, breaks last) for added end user safety

For more information on MK's Wiring Devices ranges, visit:

www.mkelectric.com





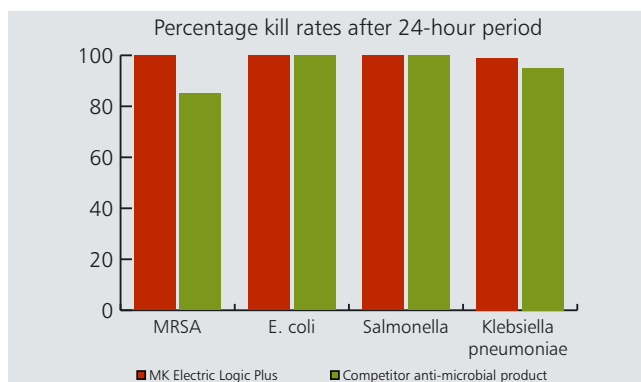
ANTI-MICROBIAL PRODUCTS

The media continues to dedicate news time and column inches to the issues around the cleanliness within health establishments such as hospitals, surgeries and dentists etc, resulting in an environment of concern amongst the general public, Government and the Healthcare sector.

In 2008, MK Electric commissioned independent testing on the Logic Plus range and a competitor's 'Anti-Microbial' range by a reputable independent UKAS accredited laboratory. The laboratory tested the products, after cleaning with disinfectant (the Government's 'Deep Clean' policy targeted all hospitals to undergo a deep clean by March 2008, which included cleaning all fixtures and fittings).

THE METHOD

The organisms MRSA, E. coli, Salmonella and Klebsiella pneumoniae were applied to the products. Results were collected at 0 minutes, 4 hour, 8 hour and 24 hour intervals.



Source: MK commissioned report, 2008

SUMMARY

MRSA Logic Plus has a kill rate of 99.9% compared to the competitor's Anti-Microbial product with only 86.4%.

Both products had an equal 99.9% kill rate for **E. coli** and **Salmonella**.

Klebsiella pneumoniae Logic Plus has a kill rate of 98.9%, compared to the competitor's Anti-Microbial product with 95.4%.

The Logic Plus range is produced using Urea Formaldehyde, a high grade thermoset material, which has similar inherent properties to antimicrobial additives, which inhibit the growth of infectious diseases such as MRSA, E. coli, Salmonella and Klebsiella pneumoniae. In addition, Logic Plus products are scratch-free thanks to high quality mould tools, which means there are no dirt traps for bacteria to breed.

Whilst cleanliness is key to fighting these infections, and not replaced by the use of MK's Logic Plus products, the independent results show that the range is more effective than a competitor's Anti-Microbial products at killing MRSA organisms and contributes beneficially to any hygiene regime.



Prestige 3D Antibac Blue

Reports show 300,000 healthcare associated infections were contracted in the UK in 2008, with an annual investment of £270million in infection control.

- Healthcare associated infections cause 5000 deaths a year, at a cost of £1billion

- Patients recovering from such infections spend on average 10 extra days in hospital, which costs the NHS three times their original treatment
- The use of antibacterial products supports the existing infection control initiatives such as hand hygiene and barrier nursing



PRESTIGE 3D ANTIBAC BLUE INSTALLED WITH MEIGAN SOCKET OUTLETS

New from MK Electric, Prestige 3D Antibac Blue offers an antibacterial cable management solution for power and data distribution in environments where hygiene is a priority. With ongoing concern over hospital acquired infections such as MRSA, the demand for antibacterial products continues to rise. Prestige 3D Antibac Blue is designed to kill bacteria which can grow on surfaces such as trunking systems. It uses a silver based additive inherent within the PVCu which acts as an effective weapon in fighting harmful bacteria such as MRSA, and Klebsiella pneumoniae.

MK offer a complete antibacterial solution, by complementing Prestige 3D Antibac Blue with Logic Plus wiring devices, the entire installation will meet the requirements of an antibacterial specification. The trunking and wiring devices are both open to contact, therefore the control of the spread of bacteria and infections can only be effective with a complete solution. MK's Prestige 3D Antibac Blue range will meet the demands of the Healthcare Trusts, Infection Control Departments or Facilities Managers specifying antibacterial products, as well as providing the fastest installation for Contractors, the range has been

independently verified as 40% faster than similar competitor systems to install*.

HOW DOES PRESTIGE 3D ANTIBAC BLUE WORK?

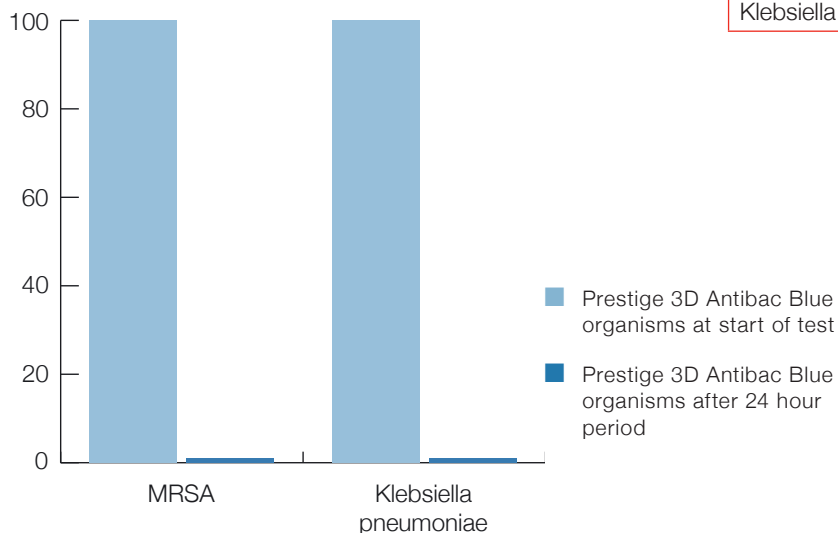
Prestige 3D Antibac Blue is an antibacterial 3 compartment power and data trunking system designed to kill bacteria which can grow on surfaces.

It uses a silver based additive inherent within the PVCu which acts as an effective weapon in fighting bacteria such as MRSA and other harmful bacteria. The silver additive is a bactericide and will therefore kill bacteria instead of just restricting their growth.

As the additive is inherent within the PVCu compound the antibacterial protection runs throughout the products themselves. There is no loss of protection where the trunking lengths are cut on-site or if the trunking surface becomes scuffed or scratched. The antibacterial additive depends on intimate contact between surfaces of the trunking and the user, so any barriers such as dirt or grime will reduce or negate the antibacterial effect.



Prestige 3D Antibac Blue is not intended to replace standard cleaning regimes. It is an additional protection which can only operate efficiently if the surfaces are kept free of dirt and grime. The antibacterial additive used in Prestige 3D Antibac Blue is registered with the Environmental Protection Agency (EPA) and compliant with the European Biocidal Products Directive (BPD). The additive provides effective protection against both gram positive and gram negative bacteria, unlike some other antibacterial additives which are only effective against gram positive bacteria.



MK Electric have commissioned independent tests to verify the antibacterial properties of Prestige 3D Antibac Blue. The results, collected over a 24 hour period shows results of >99.9% kill rates on the organisms MRSA, and Klebsiella pneumoniae.

PRESTIGE 3D ANTIBAC BLUE		
	% Organisms at start of test	% Organisms after 24 hour period
MRSA	100	<0.1
Klebsiella pneumoniae	100	<0.1

Prestige 3D Antibac Blue:

Features and Benefits

END CAPS

Neatly finishes runs of trunking. (Moulding provides internal location for extra security from optional screw fixing).

DIVIDER KNOCKOUTS

Wiring is also made easy with 50 x 21mm knockouts at 100mm intervals along compartment dividers, providing instant access to mounting boxes, with no drilling or cutting.

BACK BOXES

The 1, 2 and 3 gang 45mm deep back boxes and 1 and 2 gang 40mm frames ensure Cat 6 compliance and ease of connection to power and data devices. The open top/bottom allows unhindered tool free cable entry, through the trunking compartment divider knockout. The back box can slide to align with appropriate knockout (see technical pages for restrictions on use).

PRE-PUNCHED BASES

Wall fixing is simplified by the inclusion of pre-punched oval holes at 100mm intervals, ensures no drilling is required.

INTERNAL CORNER

Designed to accommodate irregularities in the squareness of the corner with a +/- 5 degrees flexibility range. The centre split gives maximum adjustment. Covers are radiused and compatible with Cat 6 data cabling requirements.

PART M

Compliance to Part M building regulations can be achieved using Part M flange or charcoal devices.

SCREW FIXING KIT

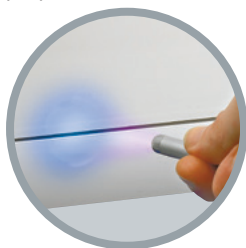
Where higher security is required, e.g. schools, all fitting covers can be secured using the Screw Fixing Kit. The Screw Fixing Kit is self-locating on the styling line of the system and has a cover to hide the screw head.



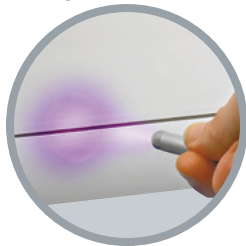
* Independently verified as 40% faster to install than Prestige Plus and similar competitor systems

UNIQUE FLUORESCENCE

For complete customer confidence, Prestige 3D Antibac Blue features a patent pending fluorescent additive which glows bright blue under a UV light, unlike standard PVCu which glows dull purple.



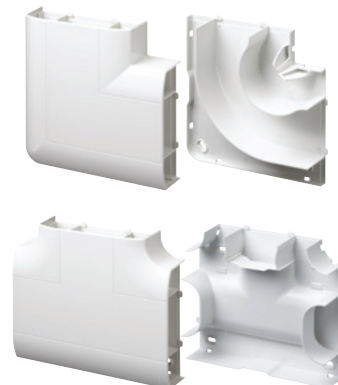
Prestige 3D Antibac Blue



Prestige 3D

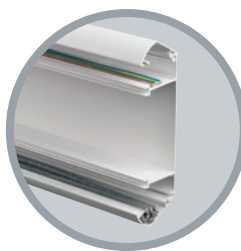
FLAT TEES AND ANGLES

The ingenuity of the patented tee design allows a variety of cable drop permutations. The tee's bridge can be fitted in two positions increasing the versatility of cable runs whilst maintaining the correct segregation and Cat 6 compliance. Screw fixing hole locations have a protective shroud to prevent the chafing of cables. Both the Flat Angle and Tee compartment divider walls are curved (Cat 6 compliant) to allow data cables to lay in with no loss of capacity. The covers are one piece and clip securely into place, and the base is also a single moulded item, giving more strength than fabrication. Joint covers are not required where the tee/angle meets the trunking as the moulded covers now overlap the junction.



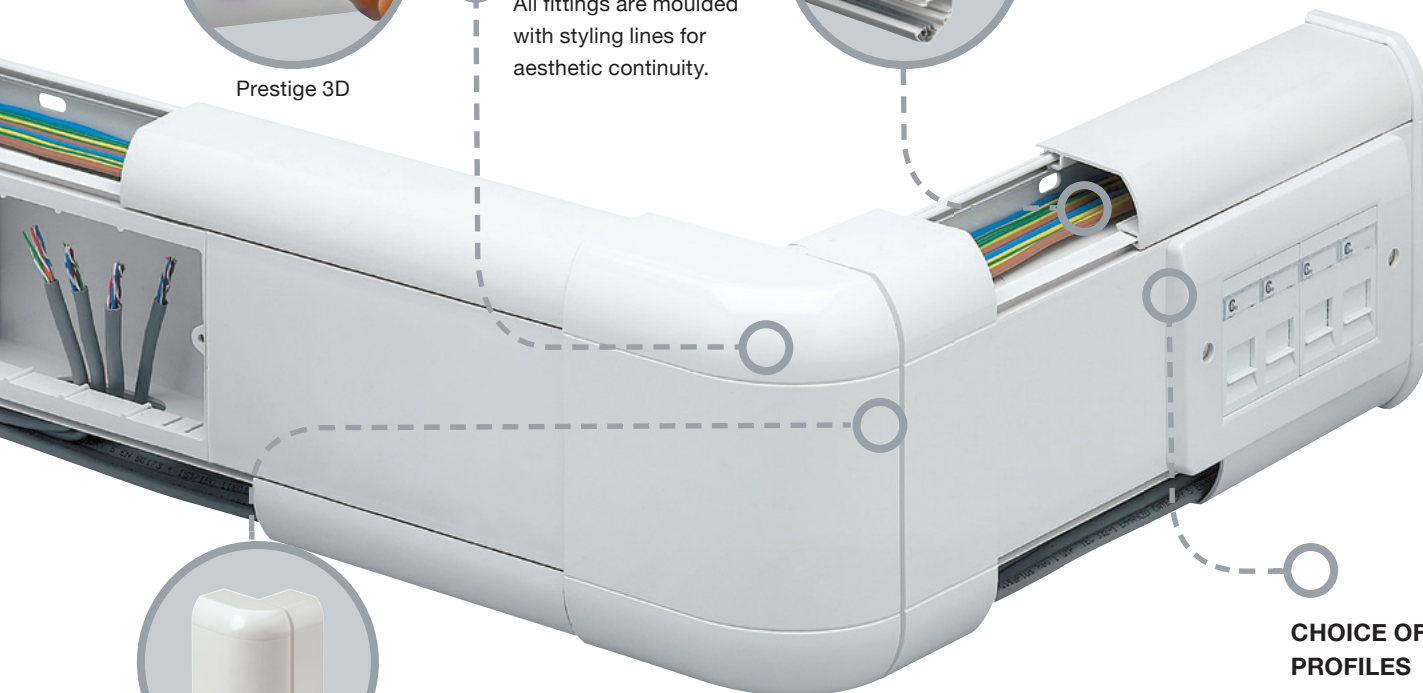
TRUNKING HINGE LIDS

A two stage location gives a hinge effect, enabling cables to be supported by the trunking cover during the installation. Cover design avoids dust traps and makes cleaning easier, and continues the aesthetics of the trunking.



STYLING LINES

All fittings are moulded with styling lines for aesthetic continuity.



CHOICE OF TWO PROFILES

Available in Dado and Skirting profiles to suit most installations.

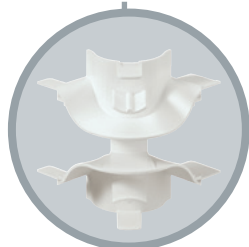
EXTERNAL CORNER

External Corners accommodate +/- 5 degree irregularities in the squareness of a corner. Corners come ready assembled to click into place, and offset side splits hide the effect of the split line for aesthetics.



ELECTROMAGNETIC INTERFERENCE

Additional data cable/signal protection is provided by fitting screening divider VP30.



DATA SWEEP

The unique patented Data Sweep provides Cat 6 data cabling compliance, with no loss of capacity and without the need for bulky, protruding corner covers.

Building Regulations: Parts L & M

PART L: CONSERVATION OF FUEL AND POWER

In April 2006, Part L of the Building Regulations, Conservation of Fuel and Power, was revised

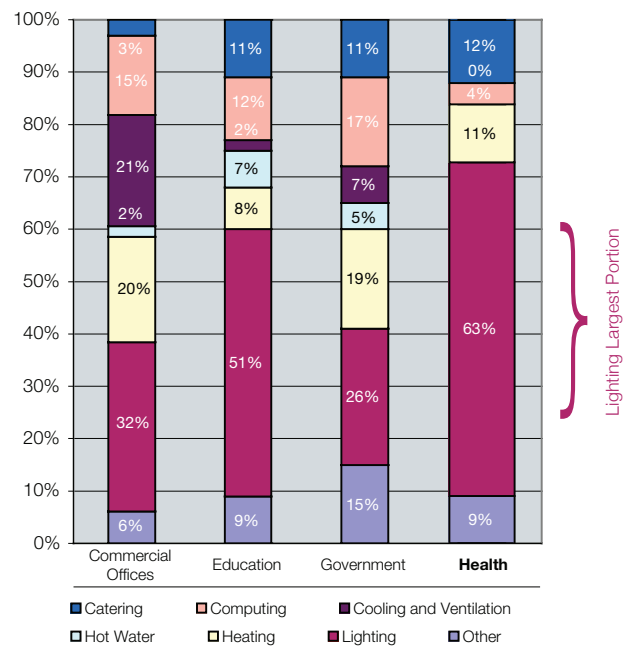
Statistics published by the Building Research Establishment show that across a broad selection of non-domestic applications, lighting represents 40% of a building's total energy consumption.

The 'Health' application shows lighting to be by far the function with the highest energy usage – 63% – which also represents the largest opportunity for energy savings.

MK Sensors not only help realise the highest potential savings in energy consumption, and thus to energy bills, but also offer the shortest payback periods.

The Building Regulations clearly state the need to provide energy efficient fixed building services with effective controls.

and reissued to ensure compliance with the legal obligations set out in the European Union Energy Performance of Buildings Directive.



PART M: ACCESS TO AND THE USE OF BUILDINGS

It is estimated that 8.6 million people in the UK are classified as disabled. In 2004, under the Building Regulations 2000, Part M was issued.

Part M is concerned with the entry and use of all building structures and facilities by all people, whether visiting, working or dwelling in them.

Firstly, appropriate selection of products considered to meet the regulations must be made, secondly they must be installed and positioned to meet the regulations.

However, when it comes to specifying electrical accessories, the onus for following the regulations is on the specifier or contractor.

MK Electric offer a wide range of products which will support compliance with Part M.



MEIGaN

The MEIGaN (Medical Electrical Installation Guidance Notes) document published in September 2007 has given healthcare organisations clear and

strict guidance regarding the electrical wiring and installation within new, refurbished or upgraded healthcare establishments.



THE KEY STIPULATIONS OUTLINED ARE:

IPS (isolated power supply) socket outlets shall be double pole or unswitched clean earth sockets, colour coded blue, engraved in white lettering 'Medical equipment only'. Page 18, Para 6.1

Where existing metal back boxes are to be used, clean earth sockets shall be fitted. Page 18, Para 6.2

In order to meet these requirements MK have produced double gang socket outlets that are available either switched or unswitched under the following list numbers:

K2947CE BLU 2G 13A Clean Earth DP Socket with Outboard Rockers

K733CE BLU 2G 13A Clean Earth Unswitched Socket

Single gang and non clean earth variants are also available through our design service.

Domestic extension mains leads shall not be used in any part of the installation. Page 17, Para 6.1

Due to the ever increasing demand for power (and data) in healthcare establishments MK offers product solutions – for both new build and retrofit applications, with the additional benefit of easily 'adding on' as needs evolve.

Prestige 3D Three compartment trunking, available in dado, skirting and compact versions

Cablelink Plus Floor Distribution Systems for Raised Floor, Screed Floor and Flush Floor



MK Electric products: Typical specification for a healthcare establishment

echo™

- Innovative range of entirely wireless, batteryless and self powered switches
- Range of 30 metres in a typical building
- Available in a choice of MK finishes



Logic Plus

- Total Safety – Sockets incorporate the MK 3-pin shutter system
- Made from a high grade thermoset material which has an inherent antimicrobial property
- Vast range of products for a total solution



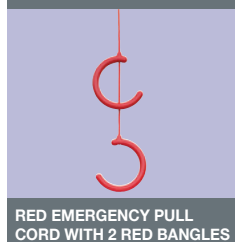
Metalclad Plus

- Tough and impact resistant
- Made from heavy gauge steel, designed for tougher environments
- Comprehensive range available in Aluminium and White finishes
- Ideal for areas of high traffic, such as wards and corridors



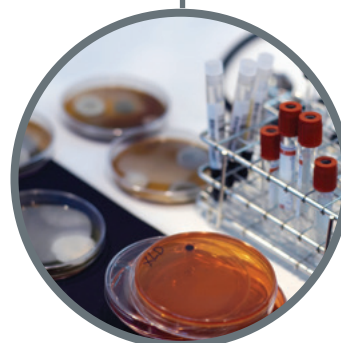
Part M Solutions

- Logic Plus in Graphite finish – sockets and switches that visually contrast with their background
- Wide rocker switches – large rocker pads for ease of activation
- Standard MK sockets have a red flash which is visible when the switch is in the 'on' position. Sockets and switches are also available with neon indicators
- Pull cord switches and bangles are available – including red cords and bangles for emergency use
- Ideal for all public areas and supports compliance to Part M of the Building Regulations



Lockable Sockets and Switches

- Key operated 20A DP switches and 13A 1G DP sockets
- Allows the user to secure the power and prevent unwanted tampering
- Sockets incorporate the MK 3-pin shutter system
- Available in Metalclad Plus, Masterseal, Albany Plus and Insignia ranges
- Ideal for use in public areas and those where the power supply needs to be secured, such as corridors and reception areas





MK SENSORS

Part L Solutions – MK Sensors

- Range of Ceiling and Corner mounted and Long Range Sensors
- All products are easy to install and commission
- Saves lighting energy (up to 90%), time, cost and supports compliance to Part L of the Building Regulations
- Ideal for areas such as toilets, offices, corridors and storage areas



PRESTIGE 3D ANTIBAC BLUE

Prestige 3D Antibac Blue Cable Management

- Reduce the risk of hospital acquired infection with antibac solution
- >99.9% kill rate against MRSA, and Klebsiella pneumoniae
- Unique fluorescent additive for product identification and customer confidence
- 40% faster to install than similar competitor products
- Cat 6 compliant with greater cable capacity and the unique Data Sweep
- Ideal for areas with high demand for power and data outlets where hygiene is a priority – such as clinics, theatres, laboratories, offices within a healthcare environment



ONIX PLUS

MK Onix Plus Power and Data Distribution



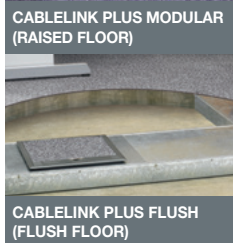
WET WASHABLE

- Floorboxes and Power Grommets – innovative solution to hard floor power and data distribution for screed floors with coverings such as laminate, wood, stone and marble.
- Wet washable and IP44 when not in use
- Superior load bearing performance and supports Cat 6 compliance
- Ideal for reception areas, corridors and wards – areas with high foot fall and equipment



CABLELINK PLUS MODULAR (RAISED FLOOR)

MK Cablelink Plus Floor Distribution Systems



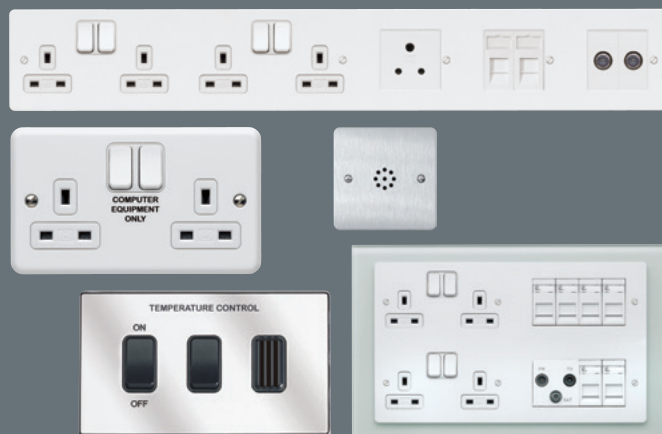
CABLELINK PLUS FLUSH (FLUSH FLOOR)

- Family of Raised, Screed and Flush Floor Power and Data Distribution Systems
- Designed to ensure robustness, faster installation times and maximum life span flexibility
- Superior load bearing performance and supports Cat 6 compliance
- Ideal for offices, reception areas, and meeting rooms

Design Service

The **MK Design Service** is perfect for when only a customised solution can meet your requirements. Our dedicated team can help – be it a particular finish, functionality or even a combination of both – from concept to completion.

The MK Design Service is totally focused on achieving the perfect result, utilising its technical, manufacturing and supply expertise to ensure your vision is realised.



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